Asthma inhaler guidelines (Paediatric <12 years)

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Target audience:	 All employees and contracted staff working on behalf of NHS Kent and Medway (NHSKM), including temporary staff, contractors and seconded staff. Members and participants of the NHSKM board and its committees. Third parties acting on behalf of NHSKM, including shared services and other agency staff including local authority. Any member of the public, including patient representatives and members of the voluntary and community sector completing work on behalf of NHSKM.
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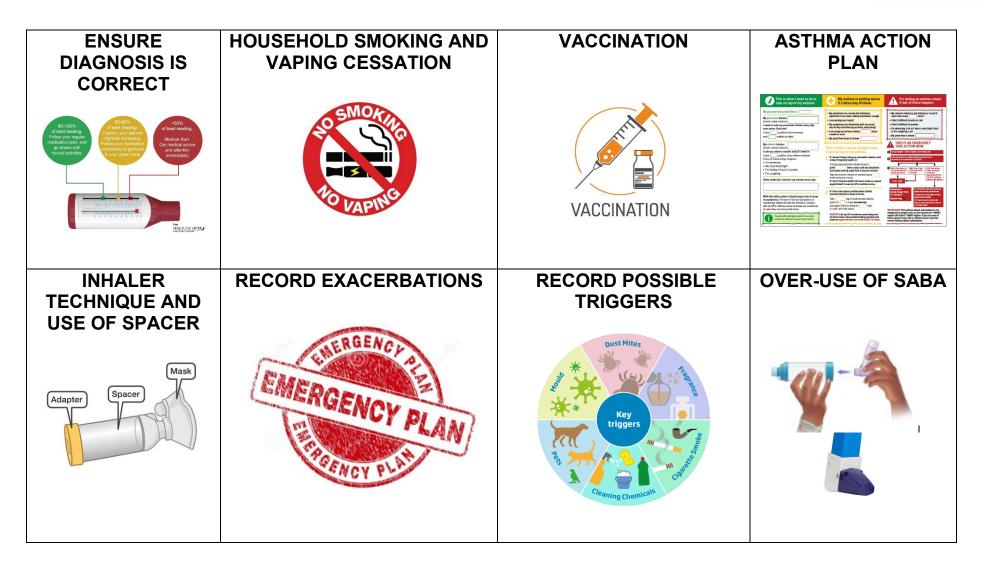
Document history of revisions:

Version	Created by	Date	Main changes/comments
1	Cath Cooksey and Sola Akeremale		New document
	Cath Cooksey		Changes are minor involving only the removal of Easychamber branding from the guidance. This does not affect the status of Easychamber on the current formularies, until further clinical information is available

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Interventions to be considered for ALL patients at ALL stages



Approved by: IMOC Approval Date: 17/08/2023 Revised Approval Date: December 2023 Review Date: December 2025 **Diagnosing Asthma –Asthma diagnosis in children is more difficult. Where possible carry out objective testing, such as PEFR and spirometry**. Symptom history, triggers and family history will often guide the likely diagnosis.

Lifestyle advice-

Discuss potential trigger factor avoidance. This could be pollen, exposure to pets, perfumes, or exercise, and is individual to each patient. Record on the patient's self-management plan.

Inhaler choice - When considering the most appropriate inhaler for a patient we need to consider several things:

- Patient's inspiratory flow- Dry Powder inhalers require greater respiratory effort, and this may not always be appropriate for children. Use In-check dial or dummy inhalers.
- Patient usability- Consider using the same type of inhaler as the patient progresses through the asthma pathway. This will improve inhaler technique and concordance.
- Carbon footprint- The NHS has committed to lowering the global warming potential (GWP) for inhalers.

THIS IS NOT INTENDED TO REPLACE ALL POTENTIAL FORMULARY AND SECONDARY CARE INHALER CHOICES, BUT TO SHARE BEST PRACTICE WHEN CONSIDERING PATIENTS JOURNEY THROUGH INHALER PATHWAY. PLEASE PRESCRIBE ALL INHALERS BY BRAND.

Review- Review patients within 8-12 weeks of starting any new therapy to assess efficacy. If no benefit is experienced review concordance and consider escalating or switching therapy. Inhaler technique, side effects and efficacy (using ACT score) should be assessed at **EVERY** interaction. **ALL PATIENTS REQUIRE AN ASTHMA MANAGEMENT PLAN-** Child: <u>Child Asthma Action Plan –</u> Asthma + Lung UK (asthmaandlung.org.uk)

Escalation and de-escalation- Before changing inhaled therapy:

- Check inhaler concordance and technique
- Eliminate any trigger factors
- Review diagnosis if outcomes are unexpectedly poor
- On changing therapy review after 8-12 weeks to assess benefit
- If patient is stable consider reducing ICS dose by 25% and review every 3 months to assess efficacy

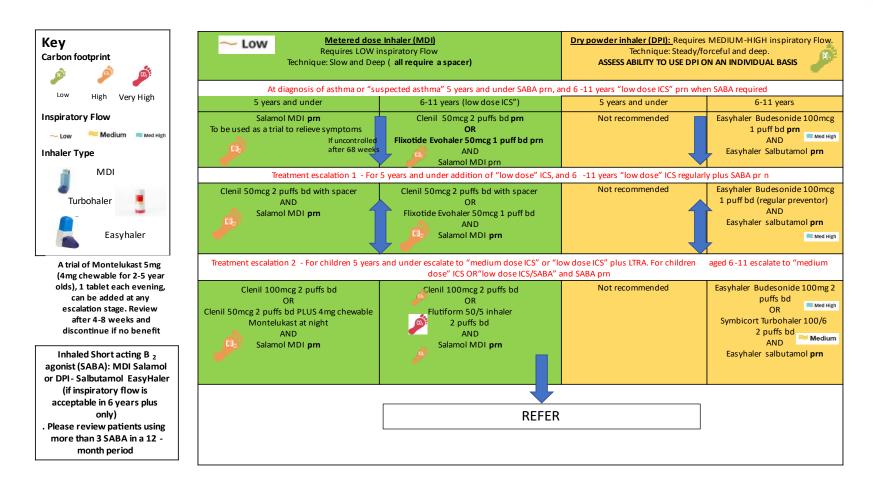
Referral- Check concordance with inhaled therapy, then consider referral to secondary care if:

- Diagnosis is unclear.
- The patient has required 2 or more courses of oral corticosteroids in a 12-month period, despite concordance to inhaled therapy.
- The patient is still exacerbating despite escalation to maximum inhaled therapy.

Spacers:

Metered dose inhalers (MDI) propel the active ingredient at 70mph, and without a robust inhaler technique, or the use of a spacer, 90% of this dose will hit the back of the throat, and eventually be swallowed, thus reducing the therapeutic effect. For children <6 years a spacer must be prescribed and renewed at least every 12 months. This is also important for any children under 12 years using an MDI. Several types of spacer are recommended for children:

- With no mask (usually blue)
- With a child mask (usually yellow)
- With an infant mask (usually orange)



NOTE: ALTHOUGH SOME 6-11 YEAR OLDS WILL BE ABLE TO USE A DPI SUCCESFULLY, AND SOME ARE LICENSED, SOME MAY PREFER TO USE AN MDI WITH A SPACER. COUNSEL THE CHILD/ADOLESCENT THOROUGHLY WITH NEW INHALER TECHNIQUE.

NOTE: NEBULISED BRONCHODILATION SHOULD NOT BE PRESCRIBED IN PRIMARY CARE. THIS INCREASES THE RISK OF POOR OUTCOMES IN CHILDREN.

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EXACERBATION GUIDELINES- Under 12 years

Assess the patient: Check the severity of the exacerbation by assessing presentation as below:					
Moderate	Severe	Life-threatening			
Peak flow (PEFR): ≥ 50% of	Pulse rate: >140bpm (2-5	PEFR <33% of predicted or			
predicted or best	years) or >125bpm (6-11	best			
Resp rate ≤40/min (2-5 years)	years)	O2 saturation on air: <92%			
or ≤30/min (6-11 years)	Respiratory rate: >40/min (2-5	Drowsy, confused, silent			
Pulse rate ≤140bpm (2-5	years) or >30/min (6-11 years)	chest, cyanosis, hypotension,			
years) or ≤125bpm (6-11	O2 saturation on air: <92%	cardiac arrythmia			
years)	PEFR: 33-50% predicted or				
O2 saturation on air: >92%	best (<50% in children)				
Normal speech	Inability to complete				
	sentences				
	Use of accessory muscles				
Start treatment					
SABA: 1 puff every 30-60 secs	While waiting for hospital transfer start SABA MDI via spacer				
up to a maximum of 10 puffs.	and O2 if available.				
If no improvement repeat					
after 10-20 mins.					
Prednisolone: 40-50mg/day					
for a minimum of 5 days					
Controlled O2 (if available):					
Target SAT : 93-95%					
	Assess symptoms				
Continue treatment with					
SABA and assess response at					
an hour or earlier if patient					
declines.					
IF NO IMPROVEMENT	TRANSFER TO HOSPITAL				
TRANSFER TO HOSPITAL					
On discharge from hospital/ or post exacerbation:					
• Follow up with GP or practice nurse within 48 hours of exacerbation/hospital discharge					

- Check inhaler technique and concordance
- Provide with an asthma self-management plan (<u>Child Asthma Action Plan Asthma +</u> <u>Lung UK (asthmaandlung.org.uk)</u>
- Advise patient to seek urgent medical assistance if symptoms deteriorate

References

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